

RK3399Pro I/O LIST For Reference Schematic

Version	Update time	Modify content	Author
V1.0	2018.12.03	The first version	rzf

GPIO POWER TYPE NOTE

CPU Gpio type	Power configuration
1.8V only	1.8V mode: VDDPST=1.8V,VDDIO=1.8V
3.3V only	3.3V mode: VDDPST=1.8V,VDDIO=3.3V
1.8V/3.0V	3.0V mode: VDDPST=1.5V,VDDIO=3.0V 1.8V mode: VDDPST=1.8V,VDDIO=1.8V
1.8V/3.0V auto	3.0V mode: VDDPST=1.5V(internal auto),VDDIO=3.0V 1.8V mode: VDDPST=1.8V(internal auto),VDDIO=1.8V
NPU Gpio type	Power configuration
1.8V only	1.8V mode: VDDIO=1.8V
1.8V/3.3V	3.3V mode: VDDIO=3.3V 1.8V mode: VDDIO=1.8V

RK3399Pro IO LIST V10 FOR REF SCHEMATIC

Pin No	Pin Name	Pin Type	I/O Def	I/O Pull	Pull Resistor	Nom Pull Resistor	Drive Current (mA)	Default Drive (mA)	Description	RK3399Pro Reference Schematic Pin Distribution
PART D PMUIO1(1.8V only I/O)										
J40	NPOR	I	I	up					System reset input	NPOR
K40	XIN_OSC	I	I	N/A	N/A	N/A	N/A	N/A	Oscillator 24MHz clock input	24MXIN_OSC
J39	XOUT_OSC	O	O	N/A	N/A	N/A	N/A	N/A	Oscillator 24MHz clock output	24MXOUT_OSC
T24	EFUSE	P	N/A	N/A	N/A	N/A	N/A	N/A	EFUSE digital I/O supply,default connect to VSS	EFUSE_VQPS
F40	GPIO0_A0/TEST_CLKOUT0/CLK32K_IN	I/O	I	up	54k-120k	80k	5,10,15,20	5	32KHz clock input	CLKOUT_32K
L34	GPIO0_A1/DDRIO_PWROFF/TCPD_CCDB_EN	I/O	I	up	54k-120k	80k	5,10,15,20	5	MIPI CAMERA RST	MIPICAM1_RST_L
W40	GPIO0_A2/REF_CLKO	I/O	I	down	55k-176k	95k	5,10,15,20	5	26MHz clock output	REFCLK_OUT
G39	GPIO0_A3/SDIO0_WRPRT	I/O	I	down	55k-176k	95k	5,10,15,20	5	WIFI module wake up AP	WIFI_HOST_WAKE_L
L37	GPIO0_A4/SDIO0_INTN	I/O	I	down	55k-176k	95k	5,10,15,20	5	NPU_PWREN_1	NPU_PWREN_1
J35	GPIO0_A5/EMMC_PWRON	I/O	I	up	54k-120k	80k	5,10,15,20	5	BT module wake up AP	BT_HOST_WAKE_L
H36	GPIO0_A6/PWM3A_IR	I/O	I	down	55k-176k	95k	5,10,15,20	5	IR receiver input	IR_RX
M35	GPIO0_A7/SDMMC0_DET	I/O	I	up	54k-120k	80k	5,10,15,20	5	SDMMC0 detect input	SDMMC0_DET_L
F39	GPIO0_B0/SDMMC0_WRPRT/TEST_CLKOUT2	I/O	I	up	54k-120k	80k	5,10,15,20	5	PCIE_WAKE	PCIE_WAKE_L
L36	GPIO0_B1/PMUIO2_VOLSEL	I/O	I	down	55k-176k	95k	5,10,15,20	5	PCIE power enable	PCIE_PWR_H
H38	GPIO0_B2	I/O	I	down	55k-176k	95k	5,10,15,20	5	NPU_PWREN_2 power enable	NPU_PWREN_2
H37	GPIO0_B3	I/O	I	down	55k-176k	95k	5,10,15,20	5	NPU_PWREN_3 power enable	NPU_PWREN_3
J37	GPIO0_B4/TCPD_VBUS_BDIS	I/O	I	down	55k-176k	95k	5,10,15,20	5	PCIE_PERST	PCIE_PERST#_L
L35	GPIO0_B5/TCPD_VBUS_FDIS/TCPD_VBUS_SOURCE3	I/O	I	down	55k-176k	95k	5,10,15,20	5	Headphone insert detect input	PHONE_DET_H
P24	PMUIO1_VDD_1V8	P	N/A	N/A	N/A	N/A	N/A	N/A	PMUIO1 Post-Driver and digital I/O power supply	VCC1V8_PMUPLL
R24	PMU_VDD_0V9	P	N/A	N/A	N/A	N/A	N/A	N/A	PMU Post-Driver power supply	VCC_0V9_S3
P25	PMU_VDD_1V8	P	N/A	N/A	N/A	N/A	N/A	N/A	PMU digital I/O power supply	VCC_1V8_S3
PART E PMUIO2(1.8 or 3.0V I/O)										
E40	GPIO1_A0/ISP0_SHUTTER_EN/ISP1_SHUTTER_EN/TCPD_VBUS_SINK_EN	I/O	I	down	34k-93k	60k	3,6,9,12	3	CPU RST	CPU_RST_NPU
D39	GPIO1_A1/ISP0_SHUTTER_TRIG/ISP1_SHUTTER_TRIG/TCPD_CC0_VCONN_EN	I/O	I	down	34k-93k	60k	3,6,9,12	3	LCD RST	LCD_RST_L
D40	GPIO1_A2/ISP0_FLASHTRIGIN/ISP1_FLASHTRIGIN/TCPD_CC1_VCONN_EN	I/O	I	down	34k-93k	60k	3,6,9,12	3	Charge and cc controler interrupt input	TYPECC_CC_INT_L
C40	GPIO1_A3/ISP0_FLASHTRIGOUT/ISP1_FLASHTRIGOUT	I/O	I	down	34k-93k	60k	3,6,9,12	3	NPU_INT_CPU	NPU_SLEEP_STATUS_DET
C39	GPIO1_A4/ISP0_PRELIGHT_TRIG/ISP1_PRELIGHT_TRIG	I/O	I	down	34k-93k	60k	3,6,9,12	3	CPU_INT_NPU	CPU_INT_NPU
B40	GPIO1_A5/AP_PWROFF	I/O	I	down	34k-93k	60k	3,6,9,12	3	PMIC sleep control output	PMIC_SLEEP_H
E38	GPIO1_A6/TSADC_INT	I/O	I	down	34k-93k	60k	3,6,9,12	3	Over-temperature protection reset power	TSADC_INT_H

F37	GPIO1_A7/SPI1_RXD/UART4_RX	I/O	I	up	33k-88k	58k	3,6,9,12	6	Reserve	Reserve
B39	GPIO1_B0/SPI1_TXD/UART4_TX	I/O	I	up	33k-88k	58k	3,6,9,12	6	Reserve	Reserve
G36	GPIO1_B1/SPI1_CLK/PMCU_JTAG_TCK	I/O	I	up	33k-88k	58k	3,6,9,12	6	Reserve	Reserve
H35	GPIO1_B2/SPI1_CSN0/PMCU_JTAG_TMS	I/O	I	up	33k-88k	58k	3,6,9,12	6	Reserve	Reserve
F36	GPIO1_B3/I2C4_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 4,need external pull-up	I2C4_SDA
G35	GPIO1_B4/I2C4_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 4,need external pull-up	I2C4_SCL
D38	GPIO1_B5	I/O	I	down	34k-93k	60k	3,6,9,12	3	USB power enable	USB5V0_EN_H
B38	GPIO1_B6/PWM3B_IR	I/O	I	down	34k-93k	60k	3,6,9,12	3	GPU sleep control output	GPU_SLEEP_H
J34	GPIO1_B7/SPI3_RXD/I2C0_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 0,for PMU,need external pull-up	I2C0_SDA_PMIC
K33	GPIO1_C0/SPI3_TXD/I2C0_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 0,for PMU,need external pull-up	I2C0_SCL_PMIC
A39	GPIO1_C1/SPI3_CLK	I/O	I	down	34k-93k	60k	3,6,9,12	3	CPU sleep control output	CPU_B_SLEEP_H
A38	GPIO1_C2/SPI3_CSN0	I/O	I	up	33k-88k	58k	3,6,9,12	3	PMIC interrupt input	PMIC_INT_L
H33	GPIO1_C3/PWM2	I/O	I	down	34k-93k	60k	3,6,9,12	3	Reserve	GPIO1_C3_Reserve
J33	GPIO1_C4/I2C8_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 8,for CC,need external pull-up	I2C8_SDA_CC
H32	GPIO1_C5/I2C8_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 8,for CC,need external pull-up	I2C8_SCL_CC
J32	GPIO1_C6/TCPD_VBUS_SOURCE0	I/O	I	down	34k-93k	60k	3,6,9,12	6	NPU_PWREN_4	NPU_PWREN_4
K32	GPIO1_C7/TCPD_VBUS_SOURCE1	I/O	I	down	34k-93k	60k	3,6,9,12	6	NPU_PWREN_5	NPU_PWREN_5
D36	GPIO1_D0/TCPD_VBUS_SOURCE2	I/O	I	down	34k-93k	60k	3,6,9,12	6	NPU_PWREN_6	NPU_PWREN_6
N24	PMUIO2_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	PMUIO2 Post-Driver power supply	VCC_1V8_S3
P23	PMUIO2_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	PMUIO2 digital I/O power supply	VCC_1V8_S3
PART P APIO2(1.8 or 3.0V I/O)										
D33	GPIO2_A0/VOP_D0/CIF_D0/I2C2_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera data port	CIF_D0
J27	GPIO2_A1/VOP_D1/CIF_D1/I2C2_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera data port	CIF_D1
F33	GPIO2_A2/VOP_D2/CIF_D2	I/O	I	down	34k-93k	60k	3,6,9,12	3	Camera data port	CIF_D2
E33	GPIO2_A3/VOP_D3/CIF_D3	I/O	I	down	34k-93k	60k	3,6,9,12	3	Camera data port	CIF_D3
G33	GPIO2_A4/VOP_D4/CIF_D4	I/O	I	down	34k-93k	60k	3,6,9,12	3	Camera data port	CIF_D4
G29	GPIO2_A5/VOP_D5/CIF_D5	I/O	I	down	34k-93k	60k	3,6,9,12	3	Camera data port	CIF_D5
H29	GPIO2_A6/VOP_D6/CIF_D6	I/O	I	down	34k-93k	60k	3,6,9,12	3	Camera data port	CIF_D6
G32	GPIO2_A7/VOP_D7/CIF_D7/I2C7_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera data port	CIF_D7
H30	GPIO2_B0/VOP_CLK/CIF_VSYNC/I2C7_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera vsync input	CIF_VSYNC
G30	GPIO2_B1/SPI2_RXD/CIF_HREF/I2C6_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera href inputI2C serial port 6,for battery,need external pull-up	CIF_HREF
H26	GPIO2_B2/SPI2_TXD/CIF_CLKIN/I2C6_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera clock inputI2C serial port 6,for battery,need external pull-up	CIF_CLKI
E34	GPIO2_B3/SPI2_CLK/VOP_DEN/CIF_CLKOUTA	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera clock output	CIF_CLK_OUT
E32	GPIO2_B4/SPI2_CSN0	I/O	I	up	33k-88k	58k	3,6,9,12	3	Camera power down control output for front	DVP_PDN0_H
J24	APIO2_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO2 Post-Driver power supply	VCC_1V8_S0
K23	APIO2_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO2 digital I/O power supply	VCC_1V8_S0
PART R SDMMC0 (1.8V/3.0V auto)										
P32	GPIO4_B0/SDMMC0_D0/UART2A_RX	I/O	I	up	33k-88k	58k	4,6,8,10,12,14,16,18	6	SDMMC0 data port	SDMMC0_D0/UART2_RX
P31	GPIO4_B1/SDMMC0_D1/UART2A_TX	I/O	I	up	33k-88k	58k	4,6,8,10,12,14,16,18	6	SDMMC0 data port	SDMMC0_D1/UART2_TX

M34	GPIO4_B2/SDMMC0_D2/APJTAG_TCK	I/O	I	up	33k-88k	58k	4,6,8,10,12,14,16,18	6	SDMMC0 data portJTAG TCK for AP	SDMMC0_D2/JTAG_TCK
H39	GPIO4_B3/SDMMC0_D3/APJTAG_TMS	I/O	I	up	33k-88k	58k	4,6,8,10,12,14,16,18	6	SDMMC0 data portJTAG TMS for AP	SDMMC0_D3/JTAG_TMS
G40	GPIO4_B4/SDMMC0_CLKOUT/MUCJTAG_TCK	I/O	I	down	34k-93k	60k	4,6,8,10,12,14,16,18	6	SDMMC0 clock outputJTAG TCK for MCU	SDMMC0_CLK
H40	GPIO4_B5/SDMMC0_CMD/MCUJTAG_TMS	I/O	I	up	33k-88k	58k	4,6,8,10,12,14,16,18	6	SDMMC0 command outputJTAG TMS for MCU	SDMMC0_CMD
R26	SDMMC0_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	SDMMC0 Post-Driver power supply	SDMMC0_VDDPST
T23	SDMMC0_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	SDMMC0 digital I/O power supply	VCCIO_SD_S0
PART R APIO3 (1.8V only I/O)										
AE9	GPIO2_C0/UART0_RX	I/O	I	up	54k-120k	80k	5,10,15,20	5	UART0 serial port, for BT module	UART0_RXD_BT
AJ6	GPIO2_C1/UART0_TX	I/O	I	up	54k-121k	81k	5,10,15,20	5	UART0 serial port, for BT module	UART0_TXD_BT
AK7	GPIO2_C2/UART0_CTSN	I/O	I	up	54k-122k	82k	5,10,15,20	5	UART0 serial port, for BT module	UART0_CTS_BT
AM6	GPIO2_C3/UART0_RTSN	I/O	I	up	54k-123k	83k	5,10,15,20	5	UART0 serial port, for BT module	UART0_RTS_BT
AD8	GPIO2_C4/SDIO0_D0/SPI5_RXD	I/O	I	up	54k-124k	84k	5,10,15,20	5	SDIO0 data port ,for WIFI module	SDIO0_D0
AK6	GPIO2_C5/SDIO0_D1/SPI5_TXD	I/O	I	up	54k-125k	85k	5,10,15,20	5	SDIO0 data port ,for WIFI module	SDIO0_D1
AG8	GPIO2_C6/SDIO0_D2/SPI5_CLK	I/O	I	up	54k-126k	86k	5,10,15,20	5	SDIO0 data port ,for WIFI module	SDIO0_D2
AE8	GPIO2_C7/SDIO0_D3/SPI5_CSN0	I/O	I	up	54k-127k	87k	5,10,15,20	5	SDIO0 data port ,for WIFI module	SDIO0_D3
AF7	GPIO2_D0/SDIO0_CMD	I/O	I	up	54k-128k	88k	5,10,15,20	5	SDIO0 command output,for WIFI module	SDIO0_CMD
AG7	GPIO2_D1/SDIO0_CLKOUT/TEST_CLKOUT1	I/O	I	up	54k-129k	89k	5,10,15,20	5	SDIO0 clock output,for WIFI module	SDIO0_CLK
AJ5	GPIO2_D2/SDIO0_DETNP/PCIE_CLKREQN	I/O	I	up	54k-130k	90k	5,10,15,20	5	BT module wake up AP	BT_WAKE_L
AD9	GPIO2_D3/SDIO0_PWREN	I/O	I	down	55k-176k	95k	5,10,15,20	5	WIFI module wake up AP	WIFI_REG_ON_H
AF8	GPIO2_D4/SDIO0_BKPWR	I/O	I	down	55k-176k	95k	5,10,15,20	5	BT_REG_ON	BT_REG_ON_H
AB8	APIO3_VDD_1V8	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO3 Post-Driver power supply	VCC_1V8_S3
PART I APIO1(3.3V only I/O)										
F24	GPIO3_A0/MAC_TXD2/SPI4_RXD	I/O	I	down	27k-102k	48k	4,7,10,13,16,19,22,26	4	MAC transmit data	PHY_TXD2
H24	GPIO3_A1/MAC_TXD3/SPI4_TXD	I/O	I	down	27k-102k	48k	4,7,10,13,16,19,22,26	4	MAC transmit data	PHY_TXD3
F29	GPIO3_A2/MAC_RXD2/SPI4_CLK	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive data	MAC_RXD2
E26	GPIO3_A3/MAC_RXD3/SPI4_CSN0	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive data	MAC_RXD3
D26	GPIO3_A4/MAC_TXD0/SPI0_RXD	I/O	I	down	27k-102k	48k	4,7,10,13,16,19,22,26	4	MAC transmit data	PHY_TXD0
G23	GPIO3_A5/MAC_TXD1/SPI0_TXD	I/O	I	down	27k-102k	48k	4,7,10,13,16,19,22,26	4	MAC transmit data	PHY_TXD1
F27	GPIO3_A6/MAC_RXD0/SPI0_CLK	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive data	MAC_RXD0
H27	GPIO3_A7/MAC_RXD1/SPI0_CSN0	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive data	MAC_RXD1
F30	GPIO3_B0/MAC_MDC/SPI0_CSN1	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC management clock	MAC_MDC
E27	GPIO3_B1/MAC_RXDV	I/O	I	down	27k-102k	48k	4,7,10,13,16,19,22,26	4	MAC receive data valid	MAC_RXDV
F23	GPIO3_B2/MAC_RXER/I2C5_SDA	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive errorI2C serial port 4,for Trackpad,need external pull-up	No used for 1000M
G24	GPIO3_B3/MAC_CLK/I2C5_SCL	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC reference clock outputI2C serial port 4,for Trackpad,need external pull-up	MAC_CLK
H23	GPIO3_B4/MAC_TXEN/UART1_RX	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC transmit enable AP wake up PCIE	PHY_TXEN
G26	GPIO3_B5/MAC_MDIO/UART1_TX	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC management command and data PCIE reset input	MAC_MDIO
F26	GPIO3_B6/MAC_RXCLK/UART3_RX	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC receive clock	MAC_RXCLK
E30	GPIO3_B7/MAC_CRIS/UART3_TX/CIF_CLKOUTB	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC carrier sense detect	PHY_RST
E29	GPIO3_C0/MAC_COL/UART3_CTSN/SPDIF_TX	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC collision detect	PHY_INT

G27	GPIO3_C1/MAC_TXCLK/UART3_RTSN	I/O	I	up	26k-71k	46k	4,7,10,13,16,19,22,26	4	MAC transmit clock	PHY_TXCLK
J22	APIO1_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO1 Post-Driver power supply	VCC_1V8_S0
J23	APIO1_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO1 digital I/O power supply	VCCIO_3V3_S0
PART N APIO5(1.8 or 3.0V I/O)										
AG3	GPIO3_D0/I2S0_SCLK	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AK1	GPIO3_D1/I2S0_LRCK_RX	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AJ2	GPIO3_D2/I2S0_LRCK_TX	I/O	I	down	34k-93k	60k	3,6,9,12	3	GSENSOR_INT	GSENSOR_INT_L
Y7	GPIO3_D3/I2S0_SDI0	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AL1	GPIO3_D4/I2S0_SDI1SDO3	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AA6	GPIO3_D5/I2S0_SDI2SDO2	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AH2	GPIO3_D6/I2S0_SDI3SDO1	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 0 port, for audio codec	Reserve for audio codec
AJ1	GPIO3_D7/I2S0_SDO0	I/O	I	down	34k-93k	60k	3,6,9,12	3	COMP_INT	COMP_INT_H
AC7	GPIO4_A0/I2S_CLK	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S MCLK, for both I2S0 and I2S1	I2S_CLK
AG1	GPIO4_A1/I2C1_SDA	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 1,for Audio,need external pull-up	I2C1_SDA_1V8
Y6	GPIO4_A2/I2C1_SCL	I/O	I	up	33k-88k	58k	3,6,9,12	3	I2C serial port 1,for Audio,need external pull-up	I2C1_SCL_1V8
AF3	GPIO4_A3/I2S1_SCLK	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 1 port, for BT module	I2S1_SCLK
AA7	GPIO4_A4/I2S1_LRCK_RX	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 1 port, for BT module	I2S1_LRCK
AH1	GPIO4_A5/I2S1_LRCK_TX	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 1 port, for BT module	I2S1_LRCK
AD6	GPIO4_A6/I2S1_SDI0	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 1 port, for BT module	I2S1_SDI
AC6	GPIO4_A7/I2S1_SDO0	I/O	I	down	34k-93k	60k	3,6,9,12	3	I2S 1 port, for BT module	I2S1_SDO
AA8	APIO5_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO5 Post-Driver power supply	VCC_1V8_S0
Y8	APIO5_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO5 digital I/O power supply	VCC_1V8_S0
PART N APIO4(1.8 or 3.0V IO)										
AF6	GPIO4_C0/I2C3_SDA/UART2B_RX	I/O	I	up	33k-89k	59k	3,6,9,12	3	I2C serial port 3,for HDMI,need external pull-up	I2C3_SDA_HDMI
AK2	GPIO4_C1/I2C3_SCL/UART2B_TX	I/O	I	up	33k-89k	59k	3,6,9,12	3	I2C serial port 3,for HDMI,need external pull-up	I2C3_SCL_HDMI
AF5	GPIO4_C2/PWM0/VOP0_PWM/VOP1_PWM	I/O	I	down	34k-95k	61k	3,6,9,12	3	LCD panel backlight brightness control output	LCD_BL_PWM
AK3	GPIO4_C3/UART2C_RX	I/O	I	up	33k-89k	59k	3,6,9,12	3	TOUCH interrupt input	TOUCH_INT_L
AJ4	GPIO4_C4/UART2C_TX	I/O	I	up	33k-89k	59k	3,6,9,12	3	TOUCH power control output	TOUCH_PWR_EN_H
AM1	GPIO4_C5/SPDIF_TX	I/O	I	down	34k-95k	61k	3,6,9,12	3	TYPEC0 power control output	VCC5V0_TYPEC0_EN
AG6	GPIO4_C6/PWM1	I/O	I	down	34k-95k	61k	3,6,9,12	3	Touch panel reset input	TOUCH_RST_L
AD7	GPIO4_C7/HDMI_CECINOUT/EDP_HOTPLUG	I/O	I	up	33k-89k	59k	3,6,9,12	3	HDMI_CEC	HDMI_CEC
AJ3	GPIO4_D0/PCIE_CLKREQNB	I/O	I	up	33k-89k	59k	3,6,9,12	3	PCIE_CLKREQ	PCIE_CLKREQ_L
AK4	GPIO4_D1/DP_HOTPLUG	I/O	I	down	34k-95k	61k	3,6,9,12	3	USB20_HUB reset input	USB20_HUB_RESET
AG4	GPIO4_D2	I/O	I	down	34k-95k	61k	3,6,9,12	3	MIPICAM0 reset input	MIPICAM0_RST_L
AM4	GPIO4_D3	I/O	I	down	34k-95k	61k	3,6,9,12	3	EFUSE_VQPS_EN	EFUSE_VQPS_EN_H
AM5	GPIO4_D4	I/O	I	down	34k-95k	61k	3,6,9,12	3	Headphone insert detect input	DVP_PDN1_3V3
AL2	GPIO4_D5	I/O	I	down	34k-95k	61k	3,6,9,12	3	No used	No used
AF4	GPIO4_D6	I/O	I	down	34k-95k	61k	3,6,9,12	3	LCD power enable	LCD_EN
AC8	APIO4_VDDPST	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO4 Post-Driver power supply	VCC_1V5_S0

AC9	APIO4_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	APIO4 digital I/O power supply	VCCIO_3V0_S0
PART Q SAR ADC(1.8V only)										
W27	ADC_IN0	A	N/A	N/A	N/A	N/A	N/A	N/A	No used	No used
Y29	ADC_IN1	A	N/A	N/A	N/A	N/A	N/A	N/A	No used	No used
Y28	ADC_IN2	A	N/A	N/A	N/A	N/A	N/A	N/A	AD keyboard input	ADC2_KEY_IN
Y27	ADC_IN3	A	N/A	N/A	N/A	N/A	N/A	N/A	Headphone	ADC3_HP_HOOK
AA28	ADC_IN4	A	N/A	N/A	N/A	N/A	N/A	N/A	No used	No used
AA27	ADC_IN5	A	N/A	N/A	N/A	N/A	N/A	N/A	HW_ID	ADC5_BOARD_ID
AA24	ADC_AVDD	AP	N/A	N/A	N/A	N/A	N/A	N/A	SAR-ADC analog power supply	VCC_1V8_S0
PART W NPU PMUIO1(1.8V only)										
P30	NPU_NPOR	I	I	fix up	56k-89k	71k	N/A	2	cpu reset npu	NPU_RESET_L
Y31	NPU_OSC_BPASS	P	I	z	N/A	N/A	N/A	N/A	OSCI analog power ground	NPU_OSC_BPASS
U30	NPU_GPIO0_A2	I/O	I	down	56k-89k	70.9	2,4,8,12	2	No used	No used
U32	NPU_GPIO0_A4/SLEEP_STATUS	I/O	I	down	56k-89k	70.9	2,4,8,12	2	Npu sleep status	NPU_SLEEP_STATUS
AA31	NPU_GPIO0_A6/TSADC_SHUT	I/O	I	Z	N/A	N/A	2,4,8,12	2	Over-temperature protection reset power	NPU_TSADC_SHUT_H
AF30	NPU_PMU_VDD_0V8	P	N/A	N/A	N/A	N/A	N/A	N/A	NPU_PMU power supply	NPU_VDD_0V8_S3
AF29	NPU_PMUIO1_VDD_1V8	P	N/A	N/A	N/A	N/A	N/A	N/A	NPU_PMUIO1 power supply	NPU_VCC_1V8_S3
PART W NPU PMUIO2(1.8V or 3.3V)										
V32	NPU_GPIO0_B0	I/O	I	up	39k-65k	51k	2,4,8,12	2	cpu int npu	CPU_INT_NPU_DET
AD33	NPU_GPIO0_C0/I2C1_SCL	I/O	I	down	39k-65k	51k	2,4,8,12	2	I2C serial port 1,need external pull-up	NPU_I2C1_SCL
P33	NPU_GPIO0_C1/I2C1_SDA	I/O	I	down	39k-65k	51k	2,4,8,12	2	I2C serial port 1,need external pull-up	NPU_I2C1_SDA
AC32	NPU_GPIO0_C2/CLKIO_32K	I/O	I	Z	39k-65k	51k	2,4,8,12	2	32KHz real time clock input or output	CLKOUT_32K
U33	NPU_GPIO0_C6	I/O	I	down	39k-65k	51k	2,4,8,12	2	NPU_VDD sleep enable	NPU_VDD_SLEEP_H
AA33	NPU_GPIO0_C7	I/O	I	down	39k-65k	51k	2,4,8,12	2	NPU_GPIO0_C7_Reserve	Reserve
AG29	NPU_PMUIO2_VDD	P	N/A	N/A	N/A	N/A	N/A	N/A	NPU_PMUIO2 power supply	NPU_VCC_1V8_S3
PART W NPU VCCIO5(1.8V or 3.3V)										
AN22	NPU_GPIO1_B4/SPI0_MOSI	I/O	I	up	39k-65k	51k	2,4,8,12	4	SPI bus port 0	No used
AP20	NPU_GPIO1_B5/SPI0_MISO	I/O	I	up	39k-65k	51k	2,4,8,12	4	SPI bus port 0	No used
AN23	NPU_GPIO1_B6/SPI0_CSN	I/O	I	up	39k-65k	51k	2,4,8,12	4	SPI bus port 0	No used
AN21	NPU_GPIO1_B7/SPI0_CLK	I/O	I	down	39k-65k	51k	2,4,8,12	4	SPI bus port 0	No used
AP27	NPU_VCCIO5	P	N/A	N/A	N/A	N/A	N/A	N/A	NPU_VCCIO5 power supply	No used
PART W NPU VCCIO6(1.8V or 3.3V)										
AJ22	NPU_GPIO4_A2/UART2_TX	I/O	I	up	39k-65k	51k	2,4,8,12	8	UART2 serial port,For npu debug	Test point
AK22	NPU_GPIO4_A3/UART2_RX	I/O	I	up	39k-65k	51k	2,4,8,12	8	UART2 serial port,For npu debug	Test point
AK21	NPU_GPIO4_A4/JTAG_TCK	I/O	I	up	39k-65k	51k	2,4,8,12	8	JTAG_TCK,For npu AP jtag	Test point
AK23	NPU_GPIO4_A5/JTAG_TMS	I/O	I	up	39k-65k	51k	2,4,8,12	8	JTAG_TMS,For npu AP jtag	Test point
AJ25	NPU_VCCIO6	P	N/A	N/A	N/A	N/A	N/A	N/A	NPU_VCCIO6 power supply	NPU_VCCIO_3V3_S3

Notes1:

- ①:Type: I = input, O = output, I/O = input/output (bidirectional), A = Analog
- ②:Output Drive Unit is mA, only Digital IO has driver strength value;
- ③:Def: I = input without any pull resistor, O = output without any pull resistor;
- ④:INT: interrupt